

Ship Sept 15

Work Order ID 165088

165088

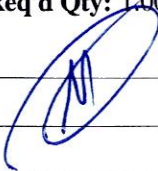
Page 1

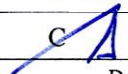
Tuesday, August 15, 2017 8:58:31 AM

Item ID: 649.4701 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 9/5/2017 Req'd Qty: 1.00 *1* Customer:

Reference:

Approvals: Process Plan:  Date: AUG 15 2017 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
649.4700	C  112.08.25								
100	Document Control								
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 649.4701								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.03							
Quality Control									

DAS
28
9-89

AUG 24 2017

AUG 18 2017

AUG 17 2017

DAS
27
9-89DAS
28
9-89

AUG 23 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 165088

Tuesday, August 15, 2017 8:58:31 AM

165088

Page 2

Item ID: 649.4701 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: AW119 Cable Cutter System
Start Date: 8/28/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/5/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging	Identify as per dwg & Stock Location: <u>Eg 101</u> Packaging Memo Identify and pack for shipping as per PPP 649.4701 Location: _____	0.00 0.00				<u>DAS 28 9-89</u>		<u>AUG 23 2017</u>	
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.10				<u>DAS 21 9-89</u>		<u>AUG 24 2017</u>	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Picklist Print

Tuesday, August 15, 2017 8:58:30 AM

Page 1

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.11.05 NEW ISSUE DD VERF:JLM IPP
REV:B AS PER ECR 12-54 13-07-09 JLM VERIFIED BY:DD
IPP REV:C 16.08.11 AS PER DWG REV.C DD VERF:JLM IPP
Rev.D 17.06.15 As per Dwg. Rev.D DP Verify DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

649.4902		Manufactured	No			110	Each	14.0000	1	1			
649 4902 Lower Cutter Assembly													

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck026

14

108553

5

124742

9

649.4901		Manufactured	No			110	Each	12.0000	1	1			
649 4901 Upper Cutter Assy													

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK025

12

108550

7

124739

1

124740

2

128190

2

649.5014		Manufactured	No			110	Each	0.0000	1	1			
649 5014 Deflector													

**

AUG 18 2017

DAS
27
9-89

649.5214		Manufactured	No			110	Each	3.0000	1	1			
649 5214 Bracket													

**

AUG 18 2017

DA
27
9-89

Location

Loc Qty

Loc Code

cck125

3

109705

3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Picklist Print

Tuesday, August 15, 2017 8:58:30 AM

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Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

649.5210

Manufactured No

110

Each

19.0000

2

2

649 5210

Doubler

**

AUG 18 2017 27 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck125

19

126246

7

149616

6

149864

6

649.4814

Manufactured No

110

Each

6.0000

2

2

649 4814

Doubler

**

AUG 18 2017 27 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK121

6

131033

6

649.4816

Manufactured No

110

Each

0.0000

3

3

649 4816

Doubler

**

B164316 * 3

AUG 18 2017 27 9-89

DAS
28
9-89

601.3493

Manufactured No

110

Each

23.0000

2

2

601 3493

Quick Release Pin

**

AUG 18 2017 27 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck101

23

m127615

23

649.5211

Manufactured No

110

Each

17.0000

1

1

649 5211

Shim

**

AUG 18 2017 27 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck125

17

108557

17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Tuesday, August 15, 2017 8:58:30 AM

Page 4

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

649.4813
649 4813

Shim

DAS
28
9-89

Manufactured No

110

Each

6.0000

4

4

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK121

6

92930

6

649.5213
649 5213

Doubler

DAS
28
9-89

Manufactured No

110

Each

7.0000

2

2

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck125

7

108558

1

131093

6

649.4812
649 4812

Shim

DAS
28
9-89

Manufactured No

110

Each

3.0000

3

3

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK062

3

131150

1

157411

2

649.4815
649 4815

Shim

68-6
82
DAS

Manufactured No

110

Each

10.0000

3

3

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK062

10

m127615

10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, August 15, 2017 8:58:30 AM

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Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

646.9910 Manufactured No

110 Each 24.0000 4 4

646 9910

Struts

**

AUG 18 2017

DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK014

24

146573

1

155353

8

160520

15

647.9014 Manufactured No

110 Each 108.0000 8 8

647 9014

Strut Bracket

**

AUG 18 2017

DA 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

cck117

58

93290

58

cck122A

50

93290

50

649.5110 Manufactured No

110 Each 20.0000 2 2

649 5110

Wiper Deflector

**

AUG 18 2017

DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

cck125

20

108877

20

649.5111 Manufactured No

110 Each 8.0000 1 1

649 5111

LH Wiper Deflector

**

AUG 18 2017

DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK064

8

108618

6

126882

2

Tuesday, August 15, 2017 8:58:30 AM

Shop Packet Print

Page 5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval _____	
Description Work Order Deviation		Disposition		Completed By _____	
				Lead hand / Supervisor Approval Verification _____	
				QC / QA Coordinator Approval _____	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Tuesday, August 15, 2017 8:58:30 AM

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165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

649.5112

Manufactured No

110

Each

10.0000

1

1

649 5112

RH Wiper Deflector

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK064

10

108918

10

AN3C12A

Purchased

No

110

Each

125.0000

8

8

AN3C12A

Bolt

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

28

M128727

7

M133990

21

OVER002

70

M138238

70

ST349

27

M137507

27

AN4C5A

Purchased

No

110

Each

67.0000

4

4

AN4C5A

Bolt

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

38

m133990

38

ST345

29

m138040

29

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

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Page 7

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

AN4C7A Purchased No

110 Each 142.0000 2 2

AN4C7A

BOLT

**

DAS
28
9-89

Location

Loc Qty

Loc Code

OVER002

75

m138246

75

ST345

67

m137361

67

2

AUG 18 2017

DAS
27
9-89

NAS1097AD-4-3 Purchased No

110 Each 4,339.000 2 2

NAS1097AD-4-3

Cherry Rivet

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST267

4339

123648

4266

m127615

73

2

AUG 18 2017

DAS
27
9-89

CR3213-5-03 Purchased No

110 Each 100.0000 16 16

CR3213-5-03

Cherry Rivet

**

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK003

100

m138207

100

~~115736~~ 16

AUG 18 2017

DAS
27
9-89

CR3213-4-05 Purchased No

110 Each 197.0000 29 29

CR3213-4-05

RIVET

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST319

197

m138084

197

29

AUG 18 2017

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Tuesday, August 15, 2017 8:58:30 AM

Page 8

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

CR3213-5-05

Purchased

No

110

Each

233.0000

20

20

CR3213-5-05

Cherry Rivet

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK003

200

m137988

200

ST319

33

123648

33

110

Each

87.0000

13

13

**

AUG 18 2017

DAS
27
9-89

91420A230

Purchased

No

91420A230

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

ST588

87

m137827

87

110

Each

73.0000

2

2

**

AUG 18 2017

DAS
27
9-89

CR3214-5-02

Purchased

No

CR3214-5-02

Cherry Rivet

DAS
28
9-89

Location

Loc Qty

Loc Code

ST318

73

123648

73

110

Each

238.0000

8

8

**

AUG 18 2017

DAS
27
9-89

NAS1832-3-7

Purchased

No

NAS1832-3-7

Insert

DAS
28
9-89

Location

Loc Qty

Loc Code

ST548

238

m127432

46

m127615

192

8

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Shop Packet Print

Page 8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Picklist Print

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Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1832-4-7

Purchased

No

110

Each

44.0000

2

2

NAS1832-4-7

Insert

DAS
28
9-89

Location

Loc Qty

Loc Code

ST548

44

123758
m135895

36
8

**

AUG 18 2017

DAS
27
9-89

NAS1834C-300

NAS1834C3-300

Purchased

No

110

Each

0.0000

2

2

NAS1834C-300

Insert

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

94

m135978

94

ST303

653

m127410

10

m133922

40

m137951

186

m138045

92

m138207

125

m138237

200

**

m124826 *2

AUG 18 2017

DAS
27
9-89

MS21042L08

Purchased

No

110

Each

747.0000

9

9

MS21042L08

Nut

DAS
28
9-89

AUG 18 2017

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : ☐									

Picklist Print

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Page 10

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

110

Each

2,069.000

25

25

MS21042L3

Nut

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

79

m135945

79

GA

350

m134360

102

M136665

248

OVER007

500

m138230

500

ST303

1140

M128754

4

m134039

12

m137988

124

m138084

1000

**

AUG 18 2017

DAS
27
9-89

MS21042L4

Purchased

No

110

Each

2,625.000

1

1

MS21042L4

Nut

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

1

m135058

1

OVER007

2000

m138084

1000

m138170

500

m138230

500

ST303

614

m137680

10

m137988

604

**

AUG 18 2017

DAS
27
9-89

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Shop Packet Print

Page 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

MS21059-3 Purchased No

110 Each 431.0000 6 6

MS21059-3

Nut Plate

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST301

431

123023

30

123900

401

MS20426AD3-5 Purchased No

110 Each 2,858.000 12 12

MS20426AD3-5

Rivet

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

2204

4533

2204

ST312

654

4533

654

MS20470AD4-3 Purchased No

110 Each 1,516.000 23 23

MS20470AD4-3

Rivet, Universal Head

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

794

2193

87

m135536

707

ST310

722

m135536

722

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause		FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

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Page 12

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

MS20470AD5-9

Purchased

No

110

Each

326.0000

4

4

MS20470AD5-9

Rivet

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST309

326

m123900

2

m125807

46

m127615

278

4

MS20470AD5-11

Purchased

No

110

Each

1,030.000

8

8

MS20470AD5-11

Rivet

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK004

189

m127615

189

ST309

841

107100

841

8

MS24694-C57

Purchased

No

110

Each

48.0000

2

2

MS24694-C57

Screw

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST285

48

123648

48

2

MS24694-S58

Purchased

No

110

Each

65.0000

1

1

MS24694-S58

SCREW

**

AUG 18 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST283

65

m131317

65

1

DAS
28
9-89

DAS
28
9-89

DAS
28
9-89

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Tuesday, August 15, 2017 8:58:31 AM

Page 13

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-18

Purchased

No

110

Each

1,539.000

4

4

MS27039-1-18

Screw

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

221

123522

39

124326

182

over006

1200

124326

1200

ST280

118

124326

118

MS27039-1-14

Purchased

No

110

Each

602.0000

4

4

MS27039-1-14

Screw

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

90

120449

90

over006

300

124326

300

ST280

212

124326

212

MS27039-08-24

Purchased

No

110

Each

126.0000

3

3

MS27039-08-24

Screw (MS27039-0824)

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

115

124326

115

ST277

11

124326

11

Tuesday, August 15, 2017 8:58:31 AM

Shop Packet Print

Page 13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Tuesday, August 15, 2017 8:58:31 AM

Page 14

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-13

Purchased

No

110

Each

501.0000

13

13

MS27039-1-13

Screw

**

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

2

124326

2

over006

300

124326

300

ST280

199

125654

199

13

MS27039-08-19

Purchased

No

110

Each

245.0000

6

6

MS27039-08-19

Screw

**

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

30

m135948

26

m137178

4

ST277

215

m137464

11

m138045

54

m138207

50

m138237

100

6

MS27039-1-25

Purchased

No

110

Each

112.0000

2

2

MS27039-1-25

Screw

**

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

over006

100

m127432

100

ST279

12

102602

12

2

Tuesday, August 15, 2017 8:58:31 AM

Shop Packet Print

Page 14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Tuesday, August 15, 2017 8:58:31 AM

Page 15

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-08

Purchased

No

110

Each

517.0000

4

4

MS27039-1-08

Screw

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

51

m136047

3

m137361

48

GA

22

m128636

22

over006

300

m138209

300

ST281

144

m137820

144

MS27039-1-10

Purchased

No

110

Each

339.0000

6

6

MS27039-1-10

SCREW

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

15

m129541

15

over006

200

m138045

200

ST280

124

m137597

30

m137736

94

AN970-3

Purchased

No

110

Each

144.0000

2

2

AN970-3

Washer

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST321

144

m136953

44

m137680

100

Tuesday, August 15, 2017 8:58:31 AM

Shop Packet Print

Page 15

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Page 16

Tuesday, August 15, 2017 8:58:31 AM

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

110

Each

3,332.000

53

53

NAS1149F0332P

Washer

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

275

m133709

275

ST260a

2000

m138209

2000

ST262

1057

m137710

1057

53

NAS1149FN832P

Purchased

No

110

Each

1,401.000

23

23

NAS1149FN832P

Washer

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

843

M135058

208

M136182

40

M136866

43

M137820

552

ST263

558

M137820

558

23

NAS1149F0432P

Purchased

No

110

Each

1,093.000

8

8

NAS1149F0432P

WASHER

**

AUG 18 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST260a

600

M138230

600

ST262

493

M137412

493

8

Tuesday, August 15, 2017 8:58:31 AM

Shop Packet Print

Page 16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

Tuesday, August 15, 2017 8:58:31 AM

Page 17

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

NAS620C-10L

Purchased

No

110

Each

221.0000

8

8

*NAS620C-10I *

Washer

DAS
28
9-89

Location

Loc Qty

Loc Code

st552

221

m127432

221

8

AUG 18 2017

DAS
27
9-89

601.2045

Purchased

No

110

Each

17.0000

1

1

601 2045

RTV (LOCTITE 598) McMaster p/n: 6641A41

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK096

9

m137538

9

1

AUG 18 2017

DAS
27
9-89

GA

8

m134260

8

1

600.1012

Purchased

No

110

Each

20.0000

1

1

600 1012

Sealant PR1425B2 (#654 sem)

DAS
28
9-89

Location

Loc Qty

Loc Code

cck017

20

m137371

1

m137699

11

m138084

8

1

AUG 18 2017

DAS
27
9-89

NAS1149F0363P

Purchased

No

110

Each

200.0000

16

16

NAS1149F0363P

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

200

m137544

200

16

AUG 18 2017

DAS
27
9-89

Tuesday, August 15, 2017 8:58:31 AM

Shop Packet Print

Page 17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Page 18

Tuesday, August 15, 2017 8:58:31 AM

Work Order ID: 165088

165088

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/28/2017

Required Date: 9/5/2017

Start Qty: 1.00

Required Qty: 1.00

649.4817

Manufactured No

110

Each

4.0000

4

4

649 4817

Shim

**

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK121

4

157350

4

4

AUG 18 2017

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APCAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APCAL INDUSTRIES IS PROHIBITED.

NOTES:

- 1 APPLY F/N 62 TO FAYING SURFACES.
- 2 AFTER INSTALLATION, APPLY F/N 63 A/R TO FILL GAPS AND FILLET EDGES
- 3 MATCH DRILL HOLE ON TAB OF F/N 13 TO FIT RIVET F/N 45
- 4 REQUIRED QTY
F/N 12: 1
F/N 15: 2
F/N 17: 1
INSTALL EXTRA AS NEEDED
- 5 INSTALL ONLY IF REQUIRED

REVISIONS				REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED	REV.	DESCRIPTION	DATE	APPROVED
C	INCORPORATED ECH 0372 0386 0446 0563	07-26-16	P. BRAVO	1	LAST PROTOTYPE REVISION: F12		
D	INCORPORATED ECH 0673	06-04-17	P. BRAVO	2	FINAL RELEASE		
				3	INCORPORATED ECH 0344 0388	01-24-12	P. BRAVO
				4	INCORPORATED ECH 0357	06-17-12	P. BRAVO
				5		05-29-12	P. BRAVO

DETAIL A

2/B7

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 165088

AUG 15 2017

DETAIL B

3/B7

DETAIL D

5/B6

DETAIL C

4/B7

QTY	FIND #	PART #	DESCRIPTION	MATL	SPEC.
4	67	649.4817	SHIM		
16	66	601.3151	WASHER	NAS1149F0363P	
	65		DELETED		
	64		DELETED		
1	63	600.1012	SEALANT	PR-1425 CLAS B	
1	62	601.2045	RTV	LOCTITE 598	
8	61	601.2381	WASHER	NAS4620C-10L	
8	60	601.2638	WASHER	NAS1149F0432P	
18	59	601.2764	WASHER	NAS1149F0832P	
53	58	601.1607	WASHER	NAS1149F0332P	
2	57	601.3470	WASHER	AN970-3	
6	56	601.1365	SCREW	MS27039-1-10	
4	55	601.1621	SCREW	MS27039-1-08	
2	54	601.3289	SCREW	MS27039-1-25	
6	53	601.2765	SCREW	MS27039-0819	
13	52	601.3190	SCREW	MS27039-1-13	
3	51	601.3124	SCREW	MS27039-0824	
4	50	601.1622	SCREW	MS27039-1-14	
4	49	601.2910	SCREW	MS27039-1-18	
1	48	601.3252	SCREW	MS24695-58	
	47		DELETED		

QTY	FIND #	PART #	DESCRIPTION	MATL	SPEC.
2	46	601.3146	SCREW	MS24694C57	
8	45	601.1125	RIVET	MS20470ADS-11	
4	44	601.2542	RIVET	MS20470ADS-9	
	43		DELETED		
23	42	601.1773	RIVET	MS20470ADS-3	
12	41	601.1616	RIVET	MS20426ADS-5	
6	40	601.1900	NUTPLATE	MS21059-3	
1	39	601.3209	LOCKNUT	MS21042L-4	
25	38	601.1624	LOCKNUT	MS21042L-3	
9	37	601.1541	LOCKNUT	MS21042L-08	
2	36	601.3008	INSERT	NAS1834C-300	
2	35	601.3468	INSERT	NAS1832-4-7	
8	34	601.3459	INSERT	NAS1832-3-7	
2	33	601.3474	CHERRY RIVET	CR3214-5-02	
13	32	601.4061	SCREW	91420A230	DR-945
20	31	601.3472	CHERRY RIVET	CR3213-5-05	
29	30	601.1183	CHERRY RIVET	CR3213-4-05	
	29		DELETED		
16	28	601.2020	CHERRY RIVET	CR3213-5-03	
2	27	601.3473	CHERRY RIVET	NAS1097AD-4-3	
2	26	601.2669	BOLT	ANAC7A	
4	25	601.3555	BOLT	ANAC5A	
8	24	601.0788	BOLT	AN3C12A	
1	23	649.5112	WIPER DEFLECTOR		
1	22	649.5111	WIPER DEFLECTOR		
2	21	649.5110	WIPER DEFLECTOR		
8	20	647.9014	STRUT BRACKET		
4	19	646.9910	STRUT		
3	18	649.4815	SHIM		
3	17	649.4812	SHIM		
2	16	649.5213	DOUBLER		
4	15	649.4813	SHIM		
1	14	649.5211	SHIM		
2	13	601.3493	QUICK RELEASE PIN		
3	12	649.4816	DOUBLER		
2	11	649.4814	DOUBLER		
2	10	649.5210	DOUBLER		
1	9	649.5011	DEFLECTOR		
2	8	649.5013	DEFLECTOR		
2	7	649.5012	DEFLECTOR		
1	6	649.4811	CLIP		
1	5	649.5212	BRACKET		
1	4	649.5214	BRACKET		
1	3	649.5014	DEFLECTOR		
1	2	649.4901	UPPER CUTTER ASSY		
1	1	649.4902	LOWER CUTTER ASSY		
		649.4701	A119 CABLE CUTTERS KIT		

QTY NEXT ASSY (S)

ORIGINAL DATE: 06-17-2012
DRAWN BY: J. COCHRAN
CHECKED BY: P. BRAVO
DRAWING APPROVAL: P. BRAVO
DATE: 06-17-2012
CONTRACT NO.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.010
3 PLACE DECIMALS ±.005
ANGLES ±.5°

PARTS LIST

DART
3030 ENTERPRISE CT.
SUITE A
VISTA, CA 92081
(760) 724-5300

A119 CABLE CUTTERS KIT

SCALE: NONE

DWG. NO. 649.4700

REV. D

SHEET 1 OF 5

DQA: _____ Date: _____



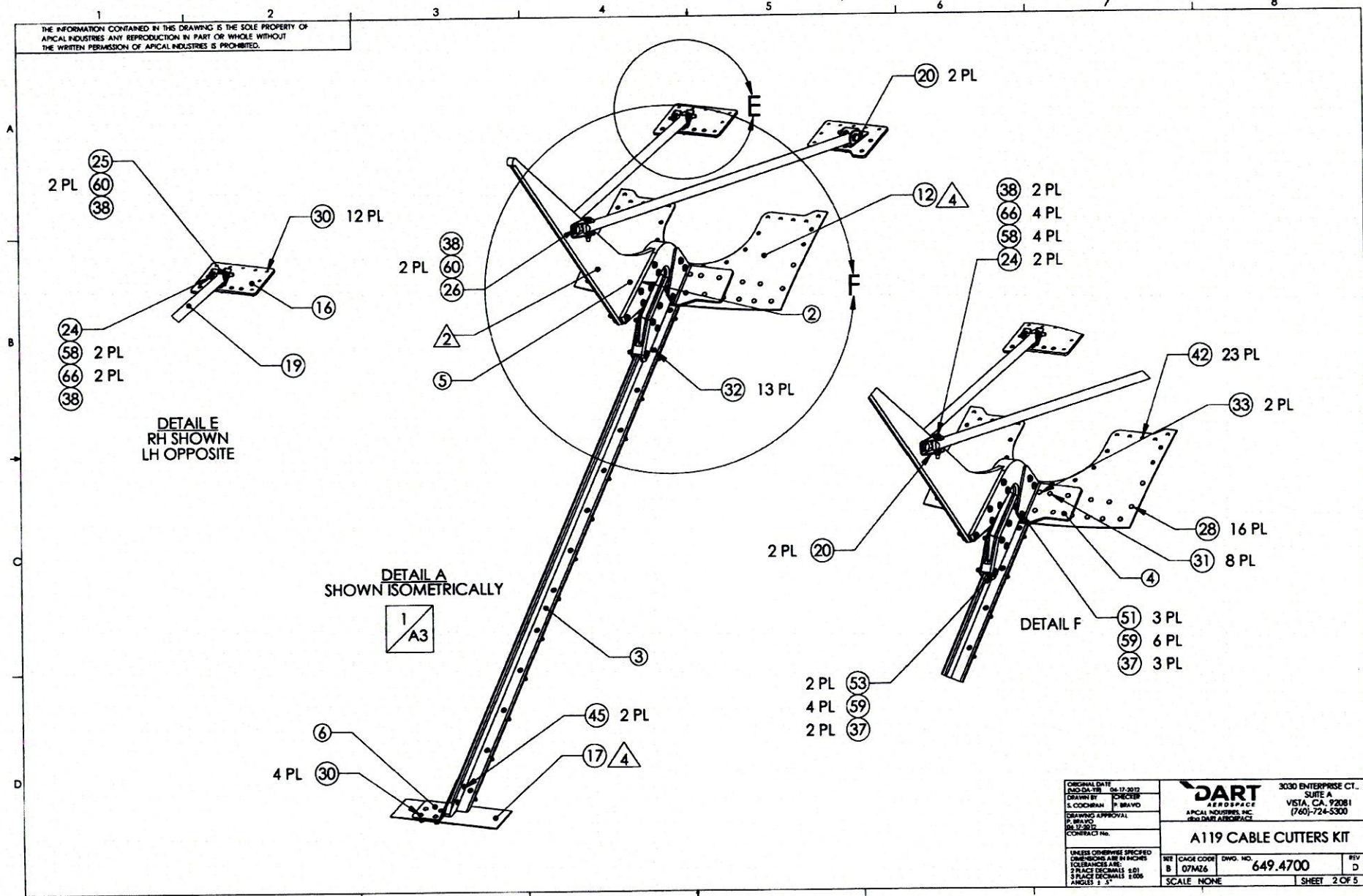
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process								
Misidentified ☐	☐ Past Due	☐ OTHER :							

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APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.



ORIGINAL DATE NO. DATE DRAWN BY S. COCHRAN DRAWING APPROVAL P. BRAYO CONTRACT NO.		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS 3 PLACE DECIMALS 1/1000 ANGLES ± 5°		A119 CABLE CUTTERS KIT	
SHEET	CAGE CODE	DWG. NO.	REV.
8	079426	649.4700	D
SCALE NONE		SHEET 2 OF 5	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

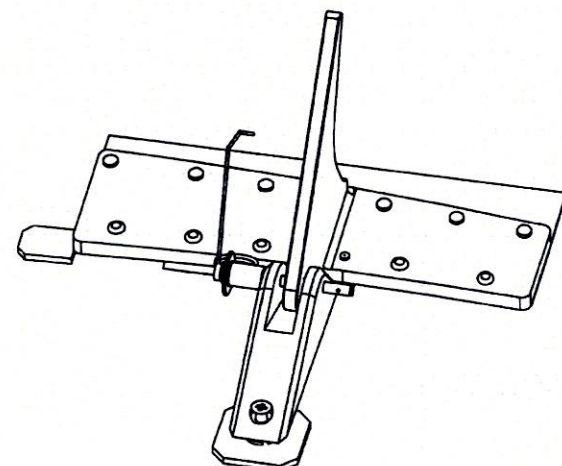
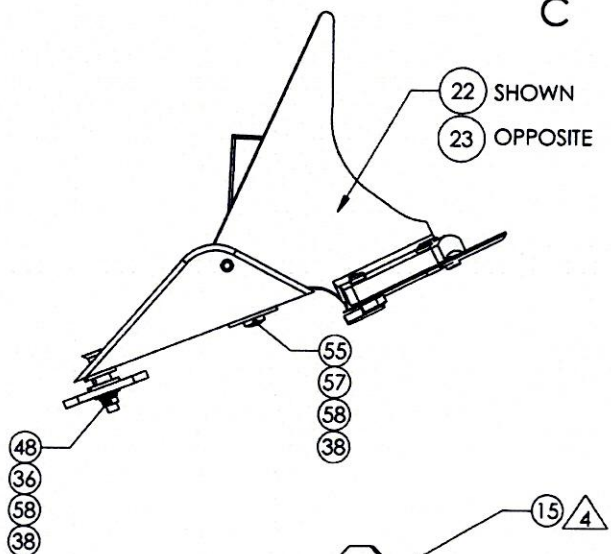
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____							
Misidentified ☐	☐ Past Due								

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THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

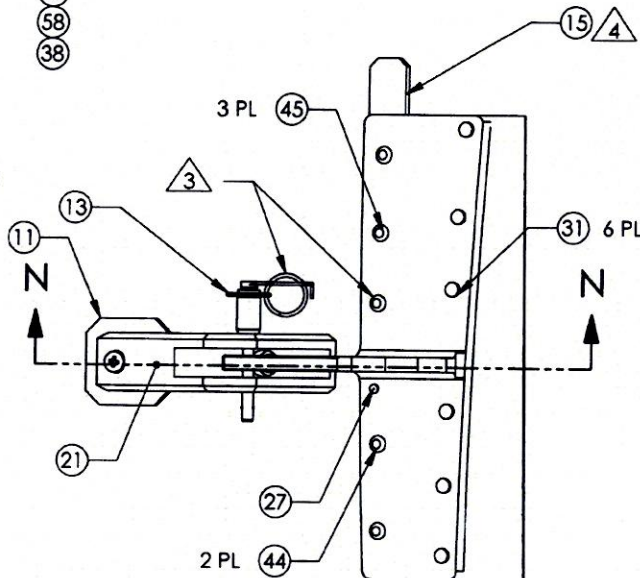
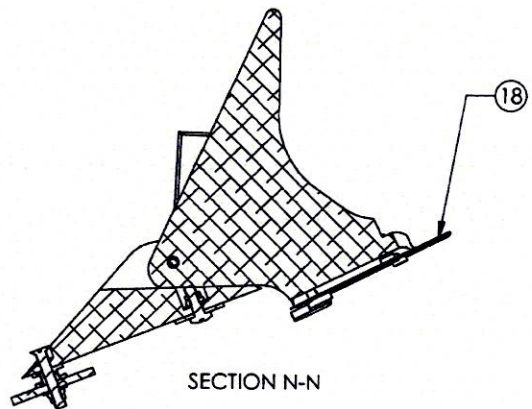
1 2 3 4 5 6 7 8

C C



DETAIL B
SHOWN ISOMETRICALLY
RH SHOWN
LH OPPOSITE

B2



ORIGINAL DATE 08/01/2012	DATE 08/15/2012	3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300
DRAWN BY S. COCHRAN	DESIGNED BY P. BRAVO	
DRAWING APPROVAL P. BRAVO		
DATE 08/15/2012		
CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		
REV B	CASE CODE 074426	DWG. NO. 649.4700
SCALE NONE		REV D
		SHEET 3 OF 5

DQA: _____ Date: _____



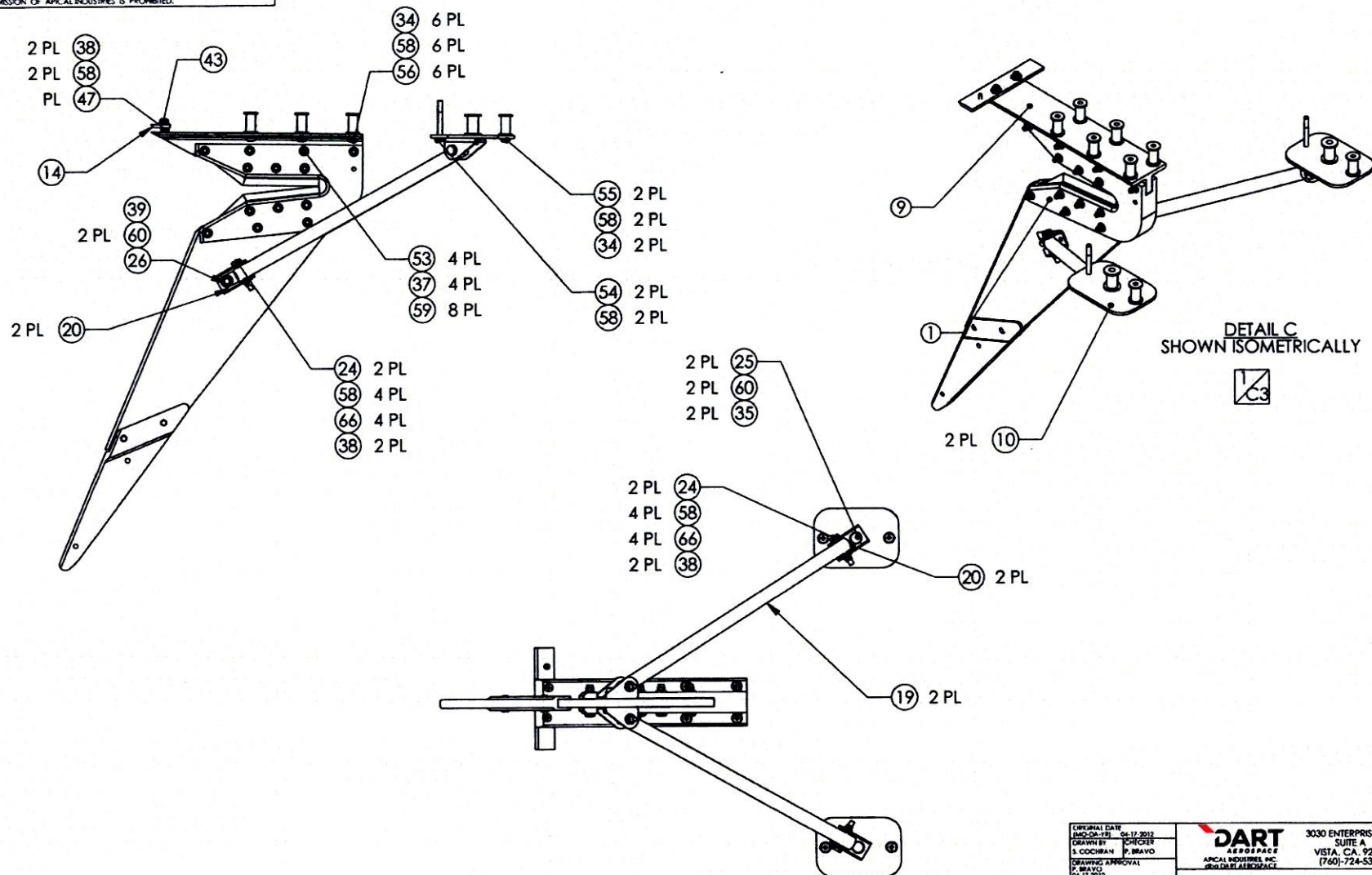
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
		OTHER : ☐							

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ORIGINAL DATE (MO-DA-YR) 04-17-2012		DRAWN BY S. COCHRAN P. BRAYO		DART AEROSPACE APICAL INDUSTRIES, INC. (949) 481-1000		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760) 724-5300	
DRAWING APPROVAL P. BRAYO 04-17-2012		CONTRACT NO.		A119 CABLE CUTTERS KIT			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACES DECIMALS ±.01 3 PLACES DECIMALS ±.005 ANGLES ±.5°		SIZE B	CAGE CODE 07M26	DWG. NO. 649.4700	REV. D		SHEET 4 OF 5
		SCALE NONE					

DQA: _____ Date: _____



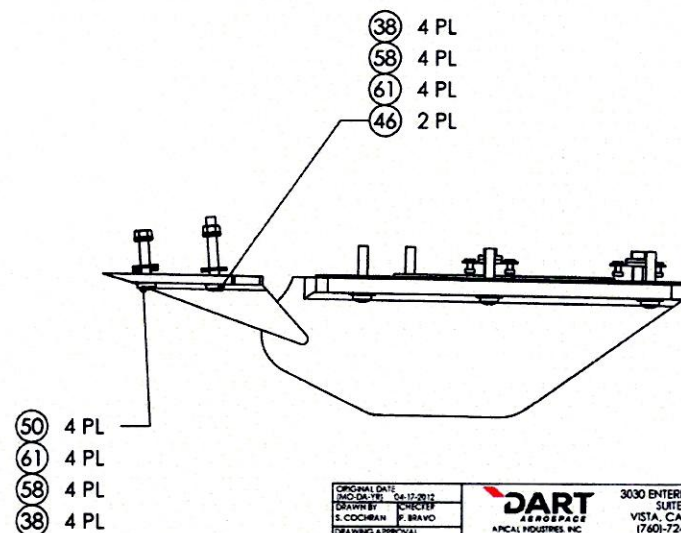
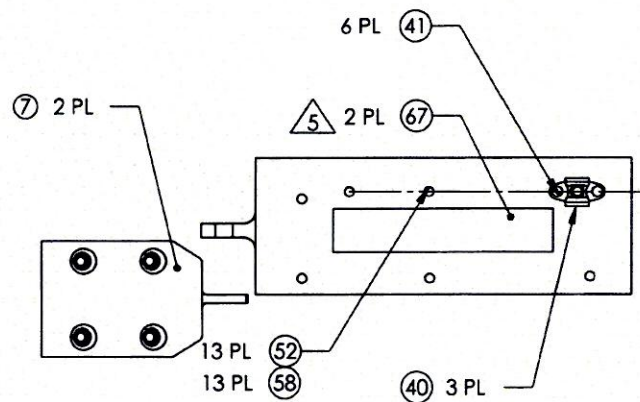
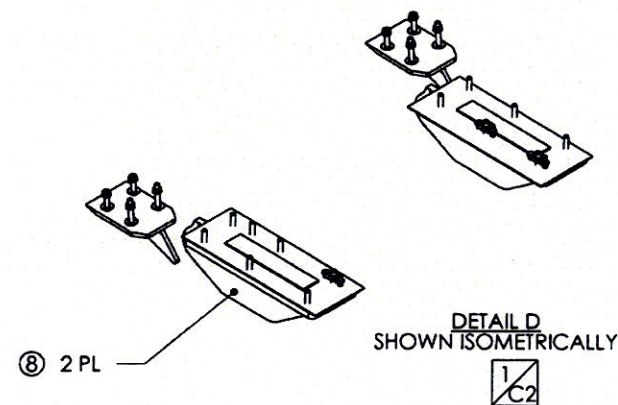
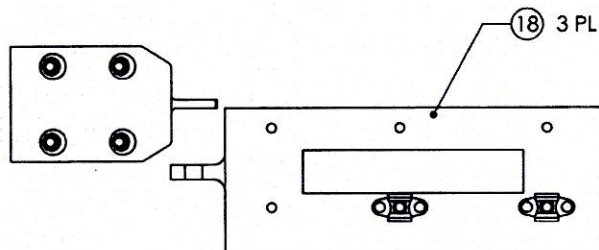
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER :							
Misidentified ☐	☐ Past Due								

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APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.



ORIGINAL DATE 04-17-2012		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY T. COCHRAN	CHECKED P. BRAVO	DART AEROSPACE	
DRAWING APPROVAL P. BRAVO 04-17-2012		APICAL INDUSTRIES, INC. 900 DART AEROSPACE	
CONTRACT NO.		A119 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°	SIZE B	CAGE CODE 07MAZ6	DWG. NO. 649.4700
	SCALE NONE		REV. D
			SHEET 5 OF 5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

REFERENCE ONLY

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NOTES:

- 1 APPLY F/N 62 TO FAYING SURFACES.
- 2 AFTER INSTALLATION, APPLY F/N 63 A/R TO FILL GAPS AND FILLET EDGES
- 3 MATCH DRILL HOLE ON TAB OF F/N 13 TO FIT RIVET F/N 45
- 4 REQUIRED QTY
F/N 12: 1
F/N 15: 2
F/N 17: 1
INSTALL EXTRA AS NEEDED
- 5 INSTALL ONLY IF REQUIRED

REV.	DESCRIPTION	DATE	APPROVED	REV.	DESCRIPTION	DATE	APPROVED
C	INCORPORATED ECH 00732, 0486, 0488, 0500	07-28-16	P. BRAVO	REV.	LAST PROTOTYPE REVISION: P02		
D	INCORPORATED ECH 00731	04-24-17	P. BRAVO	REV.	IRVING RELEASE	01-26-12	P. BRAVO
				REV.	INCORPORATED ECH 0484, 0500	04-17-12	P. BRAVO
				REV.	INCORPORATED ECH 0527	03-24-12	P. BRAVO

DETAIL A

2/B7

DETAIL B

3/B7

DETAIL D

5/B6

DETAIL C

4/B7

2	46	601.3146	SCREW	MS24694C-57	
8	45	601.1125	RIVET	MS20470ADS-11	
4	44	601.2542	RIVET	MS20470ADS-9	
	43		DELETED		
23	42	601.1773	RIVET	MS20470ADS-3	
12	41	601.1616	RIVET	MS20426ADS-5	
6	40	601.1900	NUTPLATE	MS21059-3	
1	39	601.3209	LOCKNUT	MS21042-4	
25	38	601.1624	LOCKNUT	MS21042-3	
9	37	601.1541	LOCKNUT	MS21042-08	
2	36	601.3008	INSERT	NAS1834C-300	
2	35	601.3468	INSERT	NAS1832-4-7	
8	34	601.3459	INSERT	NAS1832-3-7	
2	33	601.3474	CHERRY RIVET	CR3214-5-02	
13	32	601.4061	SCREW	91430A230	DNF65
20	31	601.3472	CHERRY RIVET	CR3213-5-05	
29	30	601.1183	CHERRY RIVET	CR3213-4-05	
	29		DELETED		
16	28	601.2020	CHERRY RIVET	CR3213-5-03	
2	27	601.3473	CHERRY RIVET	NAS1097AD-4-3	
2	26	601.2669	BOLT	ANAC7A	
4	25	601.3555	BOLT	ANAC5A	
8	24	601.0788	BOLT	ANAC12A	
1	23	649.5112	WIPER DEFLECTOR		
1	22	649.5111	WIPER DEFLECTOR		
2	21	649.5110	WIPER DEFLECTOR		
8	20	647.9014	STRUT BRACKET		
4	19	646.9910	STRUT		
3	18	649.4815	SHIM		
3	17	649.4812	SHIM		
2	16	649.5213	DOUBLER		
4	15	649.4813	SHIM		
1	14	649.5211	SHIM		
2	13	601.3493	QUICK RELEASE PIN		
3	12	649.4816	DOUBLER		
2	11	649.4814	DOUBLER		
2	10	649.5210	DOUBLER		
1	9	649.5011	DEFLECTOR		
2	8	649.5013	DEFLECTOR		
2	7	649.5012	DEFLECTOR		
1	6	649.4811	CLIP		
1	5	649.5212	BRACKET		
1	4	649.5214	BRACKET		
1	3	649.5014	DEFLECTOR		
1	2	649.4901	UPPER CUTTER ASSY		
1	1	649.4902	LOWER CUTTER ASSY		
		649.4701	A119 CABLE CUTTERS KIT		
4701	FIND #	PART #	DESCRIPTION	MATL	SPEC.

4	67	649.4817	SHIM		
16	66	601.3151	WASHER	NAS114990363P	
	65		DELETED		
	64		DELETED		
1	63	600.1012	SEALANT	PR-1425 CLAS B	
1	62	601.2045	RTV	LOCITE 598	
8	61	601.2381	WASHER	NAS620C-10L	
8	60	601.2638	WASHER	NAS114990482P	
18	59	601.2764	WASHER	NAS114990833P	
53	58	601.1607	WASHER	NAS114990332P	
2	57	601.3470	WASHER	AN970-3	
6	56	601.1365	SCREW	MS27039-1-10	
4	55	601.1621	SCREW	MS27039-1-08	
2	54	601.3289	SCREW	MS27039-1-25	
6	53	601.2765	SCREW	MS27039-0819	
13	52	601.3190	SCREW	MS27039-1-13	
3	51	601.3124	SCREW	MS27039-0824	
4	50	601.1622	SCREW	MS27039-1-14	
4	49	601.2910	SCREW	MS27039-1-18	
1	48	601.3252	SCREW	MS2669556	
	47		DELETED		
4701	FIND #	PART #	DESCRIPTION	MATL	SPEC.

QTY

NEXT ASSY (S)

ORIGINAL DATE: 04-17-2012
DRAWN BY: J. COCHRAN
CHECKED BY: P. BRAVO
DRAWING APPROVAL: P. BRAVO
DATE: 04-17-2012
CONTRACT NO.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.010
3 PLACE DECIMALS ±.005
ANGLES ±.5°

PARTS LIST

DART
APICAL INDUSTRIES, INC.
3030 ENTERPRISE CT., SUITE A
VISTA, CA 92081
(760) 724-5300

A119 CABLE CUTTERS KIT

SCALE: NONE

SHEET 1 OF 5

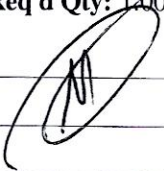
Work Order ID 165088

Tuesday, August 15, 2017 8:58:31 AM

165088

Page 1

Item ID: 649.4701 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: AW119 Cable Cutter System
 Start Date: 8/28/2017 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 9/5/2017 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan:  Date: AUG 15 2017 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
649.4700	C

100 Document Control AUG 15 2017
 100
 DC
 Doc.Control -USB or Paperwork
 Memo 0.00
 Photocopy bluefile & type labels per PPP 649.4701

DAS
5
9-89 AUG 24 2017

110 Pick Kit 0.00
 110
 Packaging Memo 0.00
 Packaging

AUG 18 2017
 DAS
27
9-89

120 QC4- 100% Inspect kits for completeness 0.00
 120
 QC Memo 0.03
 Quality Control

Ship Sept 15

United States Of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SR02425LA

This Certificate issued to

Apical Industries, Inc. dba Dart Aerospace
3030 Enterprise Court, Suite A
Vista, California 92018

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.

Original Product Type Certificate Number:

H7EU

Make:

Agusta S.p.A.

Model:

A119, AW119 Mk II

Description of Type Design Change: Installation of Apical Industries, Inc. Cable Cutters Kit in accordance with FAA approved Apical Industries, Inc. Master Document List MD119-2, Revision B, dated April 17, 2012, or later FAA approved revision.

Limitations and Conditions: This approval requires the inspections and overhaul schedules to be performed as mandated by Apical Industries, Inc.'s Instructions for Continued Airworthiness, ICA119-2, Revision A, dated April 19, 2012, or later FAA accepted revision.

This installation should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of this permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: January 10, 2012

Date reissued: August 18, 2014

Date of issuance: June 13, 2012

Date amended:



By direction of the Administrator

Haifa Haj-Eid
(Signature)

Haifa Haj-Eid
Supervisor, Technical and Administrative
Support Staff
Los Angeles Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.